

# 17

08/31/01 2167

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yellop et al.  
 Serial No. : 09/200,509  
 Filed : November 25, 1998  
 Title : CURRENCY VALIDATION APPARATUS AND METHOD

Art Unit : 3652  
 Examiner : F. Bartuska

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**BOX BOPAI**

Commissioner for Patents  
 Washington, D.C. 20231

BRIEF FOR APPELLANTS

This brief is in furtherance of the Notice of Appeal mailed in this case on June 7, 2001. Any fees required under 37 C.F.R. §1.17 (f), and any required petition for extension of time to respond and associated surcharge fees are set forth in the accompanying Transmittal of Appeal Brief. This Brief is transmitted in triplicate pursuant to 37 C.F.R. §1.192 (a).

(1) Real Party in Interest

The real party in interest is Mars Incorporated, 6885 Elm Street, McLean Virginia 22101-3883, as evidenced by the Assignment of the inventors executed on November 1, 1998 and February 2, 1999, and recorded in the U.S. Patent Office on March 1, 1999 at reel 9794, Frame 0457.

(2) Related Appeals and Interferences

There are no other appeals or interferences known to the applicant, the appellant's legal representative, or assignee which will directly affect or be directly affected by, or have a bearing on, the Board's decision in the pending appeal.

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(3) Status of Claims

Method claims 1, 9, and 11 stand rejected as being unpatentable under 35 U.S.C. §102(b) over Griner (U.S. Patent No. 4,936,435). Apparatus claims 16 and 17 and method claims 14, 15, 18 and 19 stand rejected as being unpatentable under 35 U.S.C. §102(b) over Best (U.S. Patent No. 5,355,989). Method claims 2-5, 7, 10, 12 and 13 stand rejected as being unpatentable under 35 U.S.C. §103(a) over Griner as a primary reference, and Best as a secondary reference. Method claims 6 and 8 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The claims on appeal are claims 1-19.

(4) Status of Amendments

An Amendment After Final Office Action has been filed on even date herewith for consideration by the Examiner. It is believed that the Amendment After Final Office Action places claims 1 and 2 in better form for appeal. No other amendments have been filed subsequent to the final Office Action.

(5) Summary of Invention

The invention relates to an apparatus and method for currency validation. The system ensures that all validation operations required for every article of currency will be performed efficiently and within the time available for a validation operation. This time is generally very short, because the decision must be made before the article (e.g. a coin) reaches the point at which an appropriate action has to be taken (e.g. activate an accept/reject gate in the validator). In an implementation, the technique includes comparing measured properties of an article of currency with criteria associated with a plurality of article types, determining whether or not the article belongs to one of those types, and subsequently determining whether the measured properties meet criteria relating to an article of a different type. Accordingly, the system takes into account criteria relating to many more different types of currency than can be considered in the time available for a validation operation. This has a number of potential uses. For example, by determining the nature of a rejected article in the period after rejection, the system can automatically reconfigure its validation operation to consider criteria for that type of article

during the next validation operation, before the validation determination is made. Such operation is advantageous because when a vending machine customer inserts currency into a validator and it is rejected, there is a likelihood that the customer will reinsert that same currency in hopes that it will then be accepted. Reconfiguring the validation operation improves the chances that the currency will be accepted when it is reinserted (See application page 5, lines 1-9).

In other implementations, the technique may include measuring properties of an article, checking the properties in sequence against a plurality of sets of criteria, and then determining whether the article is one of the types and altering the sequence for a subsequent validation operation; or may involve automatically preventing a single set of criteria from being considered during a subsequent validation operation (thus giving more time for other criteria to be considered); or may involve automatically enabling a single set of criteria to be considered during a subsequent validation operation. (See, for example, application page 6, lines 11-18).

The present invention therefore allows more sets of acceptance criteria to be considered than can be handled in the time available prior to issuing an accept or reject signal. Appropriate sets of criteria can be switched into or out of the plurality of sets that are checked prior to issuing the signal for a subsequent validation operation. The automatic switching between sets of acceptance criteria can be achieved in response to various types of parameters including data indicative of one or more previously validated articles of currency. Such operation optimizes the performance of the validator.

(6) Issues

- (a) Whether the Examiner erred in rejecting claims 1, 9 and 11 as unpatentable under 35 U.S.C. §102(b) over Griner (U.S. Patent No. 4,936,435).
- (b) Whether the Examiner erred in rejecting claims 14-19 as unpatentable under 35 U.S.C. §102(b) over Best (U.S. Patent No. 5,355,989).
- (c) Whether the Examiner erred in rejecting claims 2-5, 7, 10, 12 and 13 as unpatentable under 35 U.S.C. §103(a) over Griner in view of Best.

(7) Grouping of Claims

Method claims 1-11 stand or fall together. Method claims 12 and 13 stand or fall together. Method claims 14, 15, 18 and 19 and apparatus claims 16 and 17 stand or fall together. These three groups of claims do not stand or fall together.

(8) Argument

**I. The method and apparatus for validating articles of currency defined by the claims meet the conditions for patentability.**

**A. Method claims 1, 9 and 11 are not anticipated because U.S. Patent No. 4,936,435 ("Griner") does not suggest or teach to check measured properties of an article against a plurality of sets of criteria prior to determining whether or not an article of currency is accepted, and to subsequently determine whether the measured properties meet at least one further set of criteria of a currency article of a different type.**

The final action recites:

Claims 1, 9, and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Griner, cited herewith. Fig. 4 of Griner shows that coins are rejected as nickels and quarters are then tested as dimes, see col. 6, lines 6-43. Therefore, the measured properties of dimes are checked against two sets of criteria, each set corresponding to a predetermined type of article, the dimes are rejected and then subsequently the measured properties are checked against the criteria for dimes.

"It is well settled that anticipation under 35 U.S.C. 102 requires the presence in a single reference of all of the elements of a claimed invention." *Ex parte Chopra*, 229 U.S.P.Q. 230, 231 (BPA&I 1985) and cases cited. "This court has repeatedly stated that the defense of lack of novelty (i.e., 'anticipation') can only be established by a single prior art reference which discloses each and every element of the claimed invention." *Structural Rubber Prod. Co. v. Park Rubber Co.*, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984). Moreover, relying on Federal Circuit precedent, the ITC recognized that: "Anticipation requires looking at a reference, and comparing the disclosure of the reference with the claims of the patent in suit. A claimed device is anticipated if a single prior art reference discloses all the elements of the claimed invention as arranged in the claim." *In re Certain Floppy Disk Drives*, 227 U.S.P.Q. 982, 985 (U.S. ITC

1985), later proceeding 229 U.S.P.Q. (U.S. ITC 1986), *aff'd*, *Tandon Corp. v. U.S. Int'l. Trade Comm'n*, 831 F.2d 1017 (Fed. Cir. 1987).

The Griner patent does not disclose each and every element in claim 1 as arranged. Rather, the cited flowchart (Fig. 4) of Griner discloses a technique for validating coins that first checks to see if calculated ratios are within the ratios in a reference memory corresponding to nickels. If not, then a check for quarters is made. If not, then a check for dimes is made. Lastly, if not, the coin is rejected (See Griner, col. 6, lines 19-43 and steps 410 to 434 and step 428 of Fig. 4). Thus, Griner checks each item in a predefined order to see if it is a valid coin and does nothing further. In contrast, pending claim 1 recites:

“subsequently determining whether the measured properties meet at least one further set of criteria of an article of a different type.”

The appellant respectfully asserts that Griner does not teach or suggest to determine if the measured properties of an article of currency meet a further set of criteria of a different type after the article has been accepted or rejected. Since this element is missing in Griner, claim 1 and dependent claims 9 and 11 are not anticipated.

There are additional reasons why Griner does not anticipate dependent claims 9 and 11. Claim 9 limits the further sets of criteria to those representing an article which is to be rejected, such as a counterfeit coin, and claim 11 includes the feature of storing data indicating the number of articles that meet at least one further set of criteria in a manner to enable downloading of the data. Neither of these features are taught or suggested in Griner, and thus claims 9 and 11 are not anticipated.

Claim 1 has been amended in an Amendment After Final Office Action submitted on an even date herewith for the purpose of placing claim 1 in better form for consideration on appeal. In particular, claim 1 has been amended to reinstate the phrase --issuing a signal indicative of-- following the phrase “predetermined types and” to provide proper antecedent basis for the term “signal” in dependent claims 3, 4, 6-8 and 10. The phrase was inadvertently removed in the Amendment dated November 21, 2000. Neither the appellant or the Examiner were aware of the lack of an antecedent basis prior to issuance of the final Office Action. Such an amendment does not affect the scope of claim 1, and thus the appellant respectfully asserts that claim 1 is not anticipated for at least the reasons explained above.

If this ground of rejection is continued, the appellant respectfully requests an explanation of where each element of at least claim 1 can be found in Griner.

- B. Independent method claims 14, 15, 18 and 19 and independent apparatus claims 16 and 17 are not anticipated because U.S. Patent No. 5,355,989 ("Best") does not disclose each element in claims 14 to 19. In particular, Best does not describe a method for validating items of currency that checks measured properties against a plurality of different sets of criteria, each set corresponding to a predetermined different type of article, before issuing a signal indicating whether the article is one of the predetermined types as recited in claims 14 and 15. In addition, claim 14 includes automatically preventing one of the sets of criteria from being considered in a subsequent validation operation, whereas claim 15 includes automatically enabling a single different set of criteria to be considered during a subsequent validation operation, which techniques are not disclosed in Best. Independent claims 16 and 17 are not anticipated because these apparatus claims track the techniques of claims 14 and 15, and further recite to increment a credit count if the article is of the predetermined type for which the criteria are effective, and recite to either prevent or enable a set of criteria of the plurality of sets from being used in a subsequent validation operation, which techniques are not disclosed in Best. Independent method claims 18-19 are not anticipated because Best does not suggest or teach the terms of these claims calling for: checking measured properties against a plurality of sets of criteria; and preventing one set of criteria from being considered during a validation period of a subsequent validation operation.**

The Examiner rejected 14-19 on the following basis:

Claims 14-19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Best, of record. The criteria for the counterfeit coins can be prevented from being considered by selecting K' acceptance band or allowed to be considered by selecting K acceptance band.

The Best patent concerns a method and system for operating an electronic coin validator having at least one test probe to generate a digitized measuring signal if a coin passes the probe. The measuring signal is compared with an upper and lower reference value, which define a normal acceptance band (K), and a validity signal is generated if the measuring signal lies within the acceptance band. The measuring signal is also compared with a second upper and lower reference value defining a narrow acceptance band (K'), which is narrower than the first acceptance band (K) relative to at least one of the reference values. The narrow acceptance band

is alternately used for the generation of the validity signal if the measuring signal of at least one coin is outside the narrow acceptance band, whereas the normal acceptance band is used if the measuring signal of at least one coin is within the narrow acceptance band. Best thus teaches to alternately use the narrow acceptance band K' and the normal acceptance band K if certain conditions are met, and it is clear that both of the acceptance bands correspond to the same denomination coin. In particular, the example used in Best shows that the measured signal of most genuine 1 German DM coins is between reference values Ru and Ro of curve "E" shown in Fig. 1, which is designated normal channel K. Curve "F" in Fig. 1 corresponds to a Polish 20 Zloty coin which is worth a fraction of a German 1 DM coin, and part of curve "F" overlaps that of curve "E" (See Best, col. 3, line 64 to col. 4, line 2). A 20 Zloty coin is thus considered to be a counterfeit item in this example (See col. 4, lines 5-7). If the coin validator operates with normal acceptance band K for 1 DM coins, then there is a greater chance that some unwanted 20 Zloty coins will also be erroneously accepted. If a narrower acceptance band K' for 1 DM coins is used, then the probability that some 20 Zloty coins will be accepted is reduced, but some valid 1 DM coins may be rejected (See col. 4, lines 16-20). Therefore, both the K acceptance band and the K' acceptance band are used to validate 1 DM coins. Neither of these bands corresponds to the 20 Zloty coin (which is the measured signal distribution of curve F).

In contrast, claim 14 recites:

checking the properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article, during a validation period prior to issuing a signal indicating whether the article is an article of one of the predetermined types; and

automatically preventing a single one of the sets of criteria, associated with a predetermined type of article, from being considered during a validation period of a subsequent validation operation. (Emphasis added)

Best does not teach or suggest to check measured properties against a plurality of different sets of criteria, wherein each set corresponds to a different predetermined type of article. It has been suggested that Best teaches to prevent "the criteria for the counterfeit coin" from being considered by selecting the narrow acceptance band. However, Best does not utilize a discrete set of criteria for a counterfeit coin. Best does not teach or suggest to alter the set of denominations to be checked, rather teaching to change the acceptance range of a particular

article. In contrast, present claim 14 relates to a single criteria of an item (which may correspond to a genuine item of currency or to a counterfeit) out of a plurality of different sets of criteria that ceases to be considered in a subsequent validation operation. Thus, the appellant respectfully asserts that claim 14 is not anticipated by Best.

Similarly, claim 15 recites:

checking the properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article, during a validation period prior to issuing a signal indicating whether the article is an article of one of the predetermined types; and

automatically causing a single different set of criteria, associated with a different type of article, to be considered during a validation period of a subsequent validation operation. (Emphasis added)

Again, Best does not teach or suggest to check measured properties against a plurality of different sets of criteria. Furthermore, Best does not teach or suggest to cause a single different set of criteria, associated with a different type of article, to be considered during a subsequent validation operation. As explained above, both the narrow acceptance band K' and the normal acceptance band K correspond to the same predetermined type of article, not a different type of article as is claimed in claim 15. Since these limitations of claim 15 are not taught or suggested by Best, claim 15 is not anticipated.

The appellant notes that the apparatus of claim 16 is capable of responding to recognition of an article:

“by automatically preventing one of the sets of criteria from being effective during a subsequent validation operation, and then preventing incrementing of the credit count for the predetermined type of article.”

This operation is similar to that of claim 14, and also includes preventing incrementing of a credit count for the predetermined type of article. Best does not teach or suggest such features. Thus, claim 16 is not anticipated.

The apparatus of claim 17 is capable of responding to the recognition of an article:

“by automatically enabling a set of criteria, to be effective during a subsequent validation operation, thus enabling incrementing of the credit count when the predetermined type of article is recognized.”



The features of enabling a set of criteria to be effective during a subsequent validation operation, and to enable incrementing of a credit count are not taught or suggested by Best. Thus, at least for these reasons claim 17 is not anticipated.

Claims 18 and 19 disclose methods for preventing at least one set of criteria from being considered during the validation period of a subsequent validation operation, and automatically causing a different set of criteria, associated with a different type of article, to be considered in subsequent validation periods. Such techniques are not taught or suggested by Best. Moreover, claim 18 also recites that the number of sets checked are substantially equal to the maximum possible to be checked during a validation period, and claim 19 also recites that the predetermined types of articles belong to the same currency (for example, the U.S. coin set of nickels, dimes, quarters, half-dollars and dollars). Such features are not disclosed by Best. Thus, for at least these reasons, claims 18 and 19 are not anticipated.

For at least the reasons set forth above, the appellant asserts that claims 14 to 19 are not anticipated by Best. If this ground of rejection is continued, the appellant respectfully requests an explanation of at least of where each element described above of claims 14 to 19 can be found in Best.

The appellant respectfully asserts that method claims 1-11 are separately patentable from claims 14-19. In particular, claim 1 recites a method for validating articles that checks the measured properties of an article against a plurality of different sets of criteria before determining if it is acceptable or not, determining whether the item is to be accepted or rejected, and then subsequently determining whether the measured properties meet a further set of criteria of an article of a different type. Such operation is different from that recited in claims 14-19. In particular, claims 14 to 19 further recite, as explained above, to either prevent or enable a single one of the sets of criteria from being considered in a subsequent validation operation. Such features are distinct from determining whether the measured properties meet a further set of criteria as recited in claim 1.

- C. Independent method claims 1 and 12 meet the conditions for patentability because neither Griner or Best, alone or in combination, suggests or teaches the elements recited in these claims. In particular, the cited references do not suggest or teach to determine, subsequent to the validation determination, whether the measured properties meet at least one further set of criteria of**

**an article of a different type as recited in claim 1; and do not suggest or teach to alter the sequence of criteria for a subsequent validation operation as recited in claim 12.**

The Examiner rejected claims 2-5, 7, 10, 12 and 13 on the following basis:

Claims 2-5, 7, 10, 12 and 13 are rejected under 35 U.S.C 103(a) as being unpatentable over Griner in view of Best. Griner shows all the features of the applicants' claimed invention except altering the sets of criteria prior to issuing a valid signal. Best discloses in col. 5, lines 42-55 altering the sets of criteria prior to issuing a valid signal. Best discloses in col. 5, lines 42-55 altering the sets of criteria prior to issuing a valid signal to switch to a wide band for one criteria if the coin has already met a narrow band of another criteria or vice versa so that the coin does not have to meet the narrow band of each criteria and therefore fewer good coins will be erroneously rejected. It would have been obvious to one of ordinary skill in the art to view of the showing and teaching of Best to modify the device of Griner to include means to alter criteria the prior to acceptance of coins by switching between narrow and wide bands to limit the number of good coins erroneously rejected.

Obviousness is a question of law based on findings of underlying facts relating to the prior art, the skill of the artisan, and objective considerations. See Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). To establish obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. In re Raynes, 7 F.3d 1037, 1039, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). The cited prior art, however, provides no such teaching, suggestion, or motivation. In particular, Griner teaches to take measurements as an item passes three coils, to generate ratios and then to compare the ratios to a sequence (nickels, dimes, quarters) of predetermined ranges to authenticate a coin (See Griner, col. 2, lines 54-68, and col. 6, lines 19-44). Best teaches to compare a measured signal to wide and narrow acceptance bands for a particular denomination (See Best, col. 2, lines 16-21). Neither Best nor Griner provides any reason to combine their respective teachings. As discussed in Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985): "When prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself."

The appellant respectfully asserts that the cited references do not establish the obviousness of the combination.

Moreover, even if the Griner and Best patents were combined, the invention as recited in claims 1 and 12 would not be the result. "A reference is only good for what it clearly and definitely discloses." *In re Hughes*, 145 U.S.P.Q. 467, 471 (C.C.P.A. 1965). There is no disclosure in Griner to first make a determination as to the validity or invalidity of an article, and then to subsequently determine whether the measured properties meet at least one further set of criteria of an article of a different type as recited in claim 1. Best also fails to teach or suggest to subsequently determine (after a coin has been validated or rejected) whether the measured properties meet at least one further set of criteria of an article of a different type. Consequently, neither Griner or Best, alone or in combination, teaches or suggests the technique recited in claim 1. Therefore, claim 1 is patentably distinct from the cited references, and dependent claims 2-5, 7 and 10 should be allowable for at least the same reasons.

Claim 12 recites a method for validating articles of currency that includes determining, as a result of the checking operation, whether the article is one of said types, wherein the criteria relating to respective types of articles are considered in a sequence, and the sequence is altered for a subsequent validation operation. For example, if a sequence of nickels, dimes, quarters and half-dollars was used to validate an item, for the next item the sequence may be quarters, dimes, nickels, half-dollars, and the sequence after that may again be totally different than that of prior sequences. Although Griner teaches to check acceptance criteria in a sequence (for nickels, quarters and then dimes) against a ratio corresponding to measured properties of an article, Griner does not teach or suggest to alter the sequence for a subsequent validation operation. Best also fails to disclose such a technique. In fact, Best teaches to select an acceptance band for a next coin depending on whether the measuring signal of a current coin is within or outside the narrower band K' (See Best, col. 4, lines 19-30). Thus, Best does not teach or suggest to alter a sequence. Consequently, neither Griner or Best, alone or in combination, teaches or suggests to alter the sequence in which criteria relating to respective types of articles are considered as recited in claim 12. Claim 12 is thus patentably distinct thereover, and dependent claim 13 should be allowable for at least the same reasons.

The appellant respectfully asserts that the alleged teaching is found, not in the cited references, but in the claims being rejected. It is error to reconstruct the claimed invention from the prior art by using the rejected claim as a "blueprint". *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 548 (Fed. Cir. 1985).

Appellant also respectfully asserts that claim 2 has been misconstrued to mean that a combination of sets are altered prior to issuing a signal. Such misinterpretation may be a result of a possible ambiguity regarding sentence structure contained in claim 2. The rejection of claim 2 was based on the disclosure in col.5, lines 42-55 of Best which concerns altering two or more properties of the same type of coin based on different properties. Claim 2 of the present invention indicates that the combination of sets that is checked prior to issuing a signal is subsequently altered. Linking the phrase "prior to" in claim 2 to the word "altering" is incorrect; the phrase "prior to" instead should be linked to the word "checked" as has been consistently explained during prosecution by appellant. Consequently, in the amendment filed on even date herewith, the appellant amended claim 2 to remove the grammatical ambiguity, so that it is clear that it is the combination of sets which are checked that are altered.

It is respectfully asserted that it would not have been obvious to one of ordinary skill in the art in view of the showing and teaching of Best to modify the device of Griner to include means to alter the criteria subsequent to an issuance of an accept or reject signal. Neither Griner or Best, alone or in combination, teaches or suggests the altering technique as recited in claim 2. As a result, claim 2 is patentably distinct thereover, and dependent claims 3-8 and 10 should be allowable for at least the same reasons.

The appellants respectfully assert that claims 12 and 13 are separately patentable from claims 1-11 and 14-19. In particular, claim 12 includes altering the sequence in which an article is considered for a subsequent validation operation. This feature is not recited in any of the other groups of claims, and is therefore distinct from the techniques recited.

#### CONCLUSION

In view of the foregoing reasoning and authorities, the decision of the Examiner finally rejecting claims 1-19 should be reversed. Should the Board be of the opinion that one or more of the rejected claims should be allowed in amended form, the Board is respectfully requested to

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include an explicit statement that a claim may be allowed in such amended form and direct that appellants shall have the right to amend in conformity therewith, which shall be binding on the Examiner in the absence of new grounds of rejection. For example, the appellants note that claims 6 and 8 have been objected to but would be allowable if rewritten in independent form.

Enclosed is a check for \$310 to cover the Appeal Brief fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 3 AUGUST 2001

  
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(9) **Appendix**

Claims on Appeal

(NOTE: Claims 1 and 2 below appear as they stood on the date of filing of the Notice of Appeal).

1. A method of validating articles of currency, comprising:
  - checking, prior to determining whether or not the article is to be accepted or rejected, the measured properties of an article against a plurality of sets of criteria, each set corresponding to a predetermined type of article;
  - determining whether the article is a valid type of one of the predetermined types and whether the article is to be accepted or rejected; and
  - subsequently determining whether the measured properties meet at least one further set of criteria of an article of a different type.
2. A method as claimed in claim 1, including altering the combination of sets which are checked prior to issuing the signal.
3. A method as claimed in claim 2, wherein altering the combination is performed in response to determining that the measured properties meet a further one of the sets of criteria, and wherein the act of altering results in that further set of criteria being checked, in a subsequent validation operation, prior to issuing the signal.
4. A method as claimed in claim 3 wherein the act of altering results in that further set of criteria being checked in a next validation operation prior to issuing the signal.
5. A method as claimed in claim 2, wherein the act of altering includes altering the combination in a manner determined by which sets of criteria have been met in a plurality of previous validation operations.
6. A method as claimed in claim 2, wherein the act of altering includes causing a plurality of further sets of criteria, associated with a plurality of currency articles of a

common currency, to be included within the sets which are checked prior to issuing the signal.

7. A method as claimed in claim 2, wherein the act of altering comprises causing one of the further sets of criteria to be considered prior to issuing the signal, and causing one of the first-mentioned sets criteria to be considered after the signal is issued.

8. A method as claimed in claim 7, wherein the act of altering is capable of causing any of the first-mentioned sets to be considered after issuing the signal.

9. A method as claimed in claim 1, in which a said further one of the sets of criteria represents an article which is to be rejected.

10. A method as claimed in claim 9, wherein at least one set of acceptance criteria considered prior to issuing the signal is adjusted in response to determining that an article meets the further one of the sets of criteria.

11. A method as claimed in claim 1, including storing data indicating the number of articles which have met at least one further set of criteria in such a manner as to enable downloading of the data.

(a) x 12. A method of validating articles of currency comprising:  
measuring properties of an article;  
checking the properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article; and  
determining, as a result of the checking operation, whether the article is one of said types, wherein the criteria relating to respective types of articles are considered in a sequence, and the sequence is altered for a subsequent validation operation.

13. A method as claimed in claim 12, including issuing a signal indicating that the article is not genuine after a plurality of determinations and depending on the results of those determinations, and prior to further determinations being made.

14. A method of validating articles of currency comprising:  
measuring properties of an article;  
checking the properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article, during a validation period prior to issuing a signal indicating whether the article is an article of one of the predetermined types; and  
automatically preventing a single one of the sets of criteria, associated with a predetermined type of article, from being considered during a validation period of a subsequent validation operation.

15. A method of validating articles of currency comprising:  
measuring properties of an article;  
checking the properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article, during a validation period prior to issuing a signal indicating whether the article is an article of one of the predetermined types; and  
automatically causing a single different set of criteria, associated with a different type of article, to be considered during a validation period of a subsequent validation operation.

16. Apparatus for validating articles of currency comprising:  
memory for storing data defining a plurality of sets of criteria, each set corresponding to a predetermined type of article; and  
a processor operable to compare measured properties of an article with the criteria, and further operable to permit the criteria to be rendered effective or ineffective and to increment a credit count if the article is of the predetermined type for which the criteria are effective,



wherein the apparatus is capable of responding to recognition of a single article of one of the predetermined types by automatically preventing one of the sets of criteria from being effective during a subsequent validation operation, and then preventing incrementing of the credit count for the predetermined type of article.

17. Apparatus for validating articles of currency comprising:

memory for storing data defining a plurality of sets of criteria, each set corresponding to a predetermined type of article; and

a processor operable to compare measured properties of an article with the criteria, and further operable to permit the criteria to be rendered effective or ineffective and to increment a credit count if the article is of the predetermined type for which the criteria are effective,

wherein the apparatus is capable of responding to recognition of a single article of one of the predetermined types by automatically enabling a set of criteria, to be effective during a subsequent validation operation, thus enabling incrementing of the credit count when the predetermined type of article is recognized.

18. A method of validating articles of currency comprising:

measuring properties of an article;

checking the measured properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article, during a validation period prior to issuing a signal indicating whether the article is an article of a said predetermined type, the number of sets checked being substantially equal to the maximum possible to be checked during said validation period; and

wherein the method includes at least one of automatically preventing one of the sets from being considered during the validation period of a subsequent validation operation, and automatically causing a different set of criteria, associated with a different type of article, to be considered during the validation period of a subsequent validation operation.

19. A method of validating articles of currency comprising:

measuring properties of an article;  
checking the measured properties against a plurality of sets of criteria, each set corresponding to a predetermined type of article and the predetermined types belonging to the same currency, during a validation period prior to issuing a signal indicating whether the article is an article of a said predetermined type; and

wherein the method includes at least one of automatically preventing one but not all of said sets from being considered during the validation period of a subsequent validation operation, and automatically causing a different set of criteria, associated with a different type of article of the same currency, to be considered during the validation period of a subsequent validation operation.

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